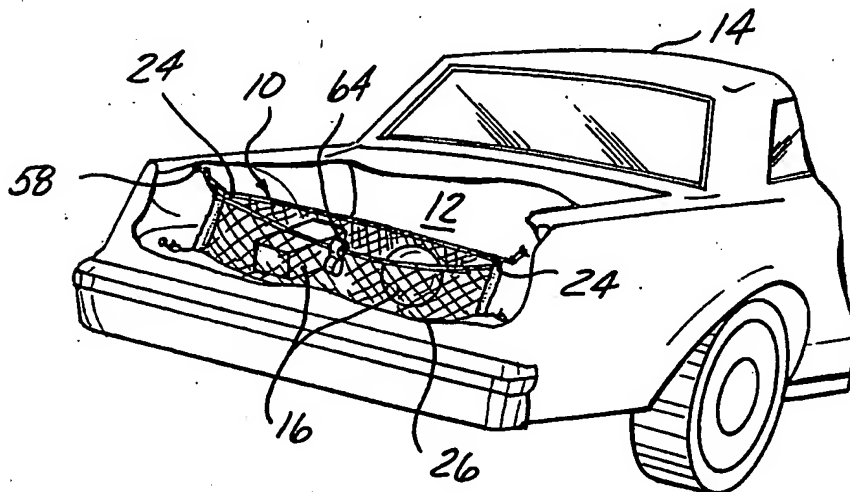




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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<b>(21) International Application Number:</b> PCT/US93/03890 <b>(22) International Filing Date:</b> 26 April 1993 (26.04.93)  <b>(30) Priority data:</b> 07/874,636      27 April 1992 (27.04.92)      US  <b>(71) Applicant:</b> POLYTECH NETTING INDUSTRIES, L.P. [US/CA]; 113-115 Cushman Road, Unit 62, P.O. Box 845, St. Catharines, Ontario L2R 6Z4 (CA).  <b>(72) Inventor:</b> MOORE, Donal ; 2190 North Lawn, Birmingham, MI 48009 (US).  <b>(74) Agent:</b> BASILE, Andrew, R.; Basile and Hanlon, 1650 West Big Beaver Road, Suite 210, Troy, MI 48084 (US).		<b>(81) Designated States:</b> CA, DE, GB, JP.  <b>Published</b> <i>With international search report.</i> <i>With amended claims and statement.</i>

**(54) Title:** AUTOMOTIVE STORAGE NET**(57) Abstract**

A storage net (10) useful in the stowage area (12) of a motor vehicle is disclosed. The storage net (10) comprises a storage area (18) having a front (20), a back (22) and two sides (24), the front (20) and back (22) being pivotally connected at one end (26). A mechanism (30) is included for providing a predetermined amount of longitudinal elasticity to the storage area (18). Further, the storage net (10) comprises a mechanism (56) for removably attaching the storage area (18) to a desired surface or to the storage area.

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AUTOMOTIVE STORAGE NETBACKGROUND OF THE INVENTION

The present invention relates generally to storage nets, and more specifically to a storage net mountable in a motor vehicle stowage compartment.

For years, consumers have sought more efficient, convenient and versatile ways to transport contents to be stowed in a motor vehicle such as a van, automobile trunk or four wheel drive off-the-road vehicle. Conventional means of stowage transport have consisted mainly in trunk space, beds of pick-up trucks, or the area behind the rear seats in a van. These means have served their purpose satisfactorily, however, several drawbacks exist.

One disadvantage of the examples cited above is that stowage is freely movable within the stowage compartment, and can be damaged in the event of a sudden stop. Further, conventional stowage transporting means generally have only one large compartment, and it is difficult to transport a mixture of heavy items with more delicate or fragile items.

Thus, it is an object of the present invention to provide an automotive storage net which will advantageously provide safety to contents to be stowed in the vehicle. It is a further object of the present invention to provide such a net which is expandable to receive a sufficient amount of stowage, yet non-elastic enough to prevent stowed items within the net from moving more than a predetermined distance. It is a further object of the present invention to provide a net which will prevent stowage from inadvertently leaving the net during operation of the motor vehicle. It is a further object of the present invention to provide a net which can divide a single stowage transporting area into one or more discrete and sectioned areas within the stowage area. Still further, it is an object of the present invention to

provide such a net which is strong and resilient, yet lightweight, thereby preserving fuel efficiency.

#### SUMMARY OF THE INVENTION

The present invention addresses and solves the above-mentioned problems by providing a storage net useful in the stowage area of a motor vehicle. The storage net comprises a storage area having a front, a back and two sides, the front and back being pivotally connected at one end. Means are included for providing a predetermined amount of longitudinal elasticity to the storage area. Further, the storage net comprises means for removably attaching the storage area to a desired surface or to the stowage area.

#### BRIEF DESCRIPTION OF THE DRAWINGS

Other objects, features and advantages of the present invention will become apparent by reference to the following detailed description and to the drawings, in which:

Fig. 1 is a cutaway perspective view showing the storage net in place in the trunk of an automobile;

Fig. 2 is an enlarged, cutaway perspective view of one embodiment of the storage net, showing the optional spacer in place, as well as a user's hand in conjunction with the optional handle;

Fig. 3 is an enlarged top view of the spacer shown in Fig. 2;

Fig. 4 is an enlarged, cutaway perspective view of an alternate embodiment of the storage net, showing a mating hook and loop attachment at the lower end of the net;

Fig. 5 is an enlarged, cutaway perspective view of another alternate embodiment of the storage net;

Fig. 6 is a cutaway perspective view showing a further alternate embodiment of the storage net in place in the bed area of a pickup truck; and

Fig. 7 is an enlarged, cutaway perspective view of the embodiment of the storage net shown in Fig. 6.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring now to Fig. 1, the storage or convenience net of the present invention is designated generally as 10. In Fig. 1, storage net 10 is shown  
5 removably mounted in the trunk compartment 12 of an automobile 14. Net 10 is shown carrying various stowage 16.

Referring now to Fig. 2, net 10 comprises a storage area 18 having a front 20, a back 22 and two  
10 sides 24. Front 20 and back 22 are pivotally connected at one end 26.

The storage net 10 further comprises means for providing a predetermined amount of longitudinal elasticity to storage area 18. The longitudinal elasticity  
15 enables storage area 18 to move in the direction of double arrow 28. It is to be understood that the longitudinal elasticity means may comprise any suitable means, and the amount of elasticity will be determined according to the particular requirement necessitated by the desired  
20 end use. In a preferred embodiment, the longitudinal elasticity providing means comprises an elastic member 30 attached to the one end 26. This elastic member 30 may comprise any suitable means, but in the preferred embodiment, it comprises an elastic cord threaded through the  
25 mesh 32 of storage area 18.

The longitudinal elasticity providing means may further or alternately comprise two elastic members 34, 34', one member 34 being attached to the front edge 36  
30 distal from the one end 26, and the other member being attached to the back edge 38 distal from the one end 26. In the embodiments shown in Figs. 4 and 5, net 10' and 10" has elastic members 34, 34' extending the full length of front edge 36 and back edge 38. In each of the three  
embodiments shown in Figs. 2, 4 and 5, the elastic mem-  
35 bers 34, 34' comprise elastic cord. This elastic cord may be formed of any suitable material, however, in the

preferred embodiment, this cord is formed of a Bungee-type cord.

Referring now to Fig. 7, a further embodiment of the storage net, designated generally as 10'' is shown, which is particularly useful for vans, pick-ups, and four wheel drive, off-road vehicles, as well as for cars. In this embodiment, one or both of the elastic members comprises an elastic bungee-type cord 40 extending the full length of one of the front and back edges 36, 38, respectively. In Fig. 7, elastic cord 40 extends the full length of front edge 36, and is in the position which faces the tailgate. The elastic member attached to back edge 38 comprises an elastic band 42 attached to and spaced from a flexible, substantially inelastic strap 44. The elastic band 42 may be attached to strap 44 by any suitable means, such as stitching or mechanical tacking. The elastic band 42 will allow a certain degree of longitudinal movement, however, the inelastic strap 44 will limit this movement when strap 44 is extended to its full length and elastic band 42 is closely adjacent and parallel to inelastic strap 44. It is to be understood that the band 42/strap 44 arrangement may comprise one or both of the elastic members.

It is to be understood that a single storage net may be formed of any of the longitudinal elasticity providing means disclosed herein and in the above four embodiments in any combination thereof, i.e. both front and back edges 36, 38 may have the elastic members formed of strap 44 and band 42, or both may be formed of elastic cord 40.

The sides 24 of storage net 10 may be open, to define a hammock-like storage area as shown in Fig. 5. In this embodiment, elastic members 48 are generally used on both sides 24, either with or without sheath 50, and elastic member 30 is optional. Sides 24 may also be closed, to define an envelope-like storage area 18, as shown in Figs. 1, 2, 4 and 6.

The storage net 10 may further comprise means for providing a predetermined amount of transverse elasticity to storage area 18. This means would allow elasticity in the direction of double arrow 46. It is to be understood that this means may comprise any suitable means, however, in a preferred embodiment, it comprises an elastic member 48 attached to each of the two sides 24.

As shown in Figs. 2 and 5, elastic member 48 may comprise an elastic, bungee-type cord, either freely movable within a sheath 50, or threaded within mesh 32 as shown in Fig. 5. As shown in Fig. 7, side 24 may also be limited in its elastic movement, much in the same way as with band 42 and strap 44. A portion of elastic cord 52 is attached to and spaced from a braided, substantially inelastic cord 54. In this way, transverse elasticity is limited by the predetermined length of braided, inelastic cord 54.

Storage net 10 further comprises means for removably attaching storage area 18 to a desired surface. Net 10 may have application in many areas, but is especially suited for use in storage areas of motor vehicles, as, for example, shown in Figs. 1 and 6. This storage area may be located in any area of the motor vehicle, including the passenger compartment. The attaching means may comprise any suitable means. This means may comprise loops 56 attached to one of the desired surface or storage area and the storage area 18, and hooks 58, or any other suitable fastener, attached to the other of the desired surface and the storage area 18. In the embodiment shown in Fig. 2, loops 56 are comprised of elastic member 48 and are disposed at the top and bottom of each side 24. In Fig. 4, loop 56 is disposed at the top of side 24, and the attaching means used at the bottom of side 24 is a mating hook 60 and loop 62 type arrangement, one such arrangement being commercially available as VELCRO brand fasteners. Further, center loops 70 are

optionally provided to prevent sagging of the net 10', and are especially useful when extending along the side of a passenger compartment, truck bed, etc. In Fig. 7, braided cord 54 terminates in loops 56 extending out of the top and bottom of each of sides 24.

Storage net 10 may further comprise a handle 64 attached to the storage area 18, for ease in adding and removing contents to and from storage area 18.

Front 20 and back 22 may be formed of two separate pieces, or may be formed from one, integral piece. Front 20 and back 22 may be formed of any suitable material, however, in the preferred embodiment, it is formed of a lightweight, woven mesh netting. This strong yet lightweight material is preferably formed from a nylon material, or any other suitable synthetic or natural material. Sheath 50, strap 44 and handle 64 may all be formed of any suitable material such as a textile material, but in the preferred embodiment, these are preferably made from a reinforced multi-filament polypropylene or polyester.

Storage net 10 may further comprise a spacer member 66 removably attached to, and extending between the front edge 36 and the back edge 38, as seen in Fig. 2. Spacer 66 may be located at any point along edges 36, 38, and preferably is located adjacent one of sides 24. As best seen in Fig. 3, spacer member 66 is in an inverted V-shape, and has slots 68 formed therein for receiving elastic member 34. The upper opening of slot 68 is smaller in width than elastic member 34, such that spacer member slots 68 have to be temporarily deformed in order to push elastic members 34 therein. This serves to securely hold elastic members 34 within slots 68 until the user wishes to remove spacer 66. Spacer 66 may be formed of any suitable material, but in the preferred embodiment, this material is a crystalline himont polypropylene.



The embodiments shown in Figs. 2, 4 and 5 are particularly useful for light objects which experience allow G-force. The embodiment shown in Fig. 7 is particularly useful for heavier objects which will experience a substantial G-force. The net of the present invention restrains items stowed in the net from moving more than a predetermined distance in any direction. Another advantage of the net is that, after stowing items within the net, front and back edges 36, 38 will come together tightly enough to prevent stowage from falling out of the top of the net.

While preferred embodiments of the invention have been described in detail, it will be apparent to those skilled in the art that the disclosed embodiments may be modified. Therefore, the foregoing description is to be considered exemplary rather than limiting, and the true scope of the invention is that defined in the following claims.

What is Claimed is:

1. A storage net, comprising:  
a storage area having a front, a back and two  
sides, the front and back being pivotally connected at  
one end;  
means for providing a predetermined amount of  
longitudinal elasticity to the storage area; and  
means for removably attaching the storage area  
to a desired surface;  
wherein items stowed in the storage area are  
prevented from moving more than a predetermined distance  
in any direction.
2. The storage net as defined in claim 1  
wherein the longitudinal elasticity providing means  
comprises an elastic member attached to the one end.
3. The storage net as defined in claim 1  
wherein the front and back each have edges distal from  
the one end and wherein the longitudinal elasticity  
providing means comprises two elastic members, one member  
being attached to the front edge and the other member  
being attached to the back edge, wherein the front and  
back edges draw together firmly enough as to prevent the  
stowed items from inadvertently escaping therebetween.
4. The storage net as defined in claim 3  
wherein one of the elastic members extends the full  
length of one of the front and back edges.
5. The storage net as defined in claim 4  
wherein the elastic member extending the full length  
comprises elastic cord, and wherein the other elastic  
member comprises an elastic band attached to and spaced  
from a flexible, substantially inelastic strap.

6. The storage net as defined in claim 3 wherein the elastic members extend the full length of the front and back edges.

7. The storage net as defined in claim 6  
5 wherein the elastic members comprise elastic cord.

8. The storage net as defined in claim 6 wherein the elastic members comprise an elastic band attached to and spaced from a flexible, substantially inelastic strap.

10 9. The storage net as defined in claim 1 wherein the sides are open, to define a hammock-like storage area.

10. The storage net as defined in claim 1 wherein the sides are closed, to define an envelope-like  
15 storage area.

11. The storage net as defined in claim 1, further comprising means for providing a predetermined amount of transverse elasticity to the storage area.

12. The storage net as defined in claim 11  
20 wherein the transverse elasticity providing means comprises an elastic member attached to each of the two sides.

13. The storage net as defined in claim 12 wherein the elastic member comprises one of elastic cord  
25 and a portion of elastic cord attached to and spaced from a braided, substantially inelastic cord.

14. The storage net as defined in claim 1 wherein the front and back are formed of a lightweight, woven mesh netting.

15. The storage net as defined in claim 1 wherein the attaching means comprises loops attached to one of the desired surface and the storage area, and hooks attached to the other of the desired surface and the storage area.

16. The storage net as defined in claim 1, further comprising a handle attached to the storage area.

17. The storage net as defined in claim 3, further comprising a spacer member removably attached to, and extending between the front and back edges.

18. A storage net, comprising:  
a woven mesh, nylon netting storage area having a front, a back and two sides, the sides being closed to define an envelope-like storage area, the front and back being pivotally connected at one end and each having edges distal from the one end;

means for providing a predetermined amount of longitudinal elasticity to the storage area, the longitudinal elasticity providing means comprising two elastic members, one member being attached to the front edge and the other member being attached to the back edge;

means for providing a predetermined amount of transverse elasticity to the storage area, the transverse elasticity providing means comprising an elastic member attached to each of the two sides; and

means for attaching the storage area to a desired surface;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction and wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween.

19. A motor vehicle having a stowage area and a storage net disposed in the stowage area, the storage net comprising:

5 a storage area having a front, a back and two sides, the front and back being pivotally connected at one end;

means for providing a predetermined amount of longitudinal elasticity to the storage area; and

10 means for removably attaching the storage area to the stowage area;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

20. The motor vehicle as defined in claim 19  
15 wherein the longitudinal elasticity providing means comprises an elastic member attached to the one end.

21. The motor vehicle as defined in claim 19 wherein the front and back each have edges distal from the one end and wherein the longitudinal elasticity  
20 providing means comprises two elastic members, one member being attached to the front edge and the other member being attached to the back edge, wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween.

22. The motor vehicle as defined in claim 21  
25 wherein one of the elastic members extends the full length of one of the front and back edges.

23. The motor vehicle as defined in claim 22 wherein the elastic member extending the full length  
30 comprises elastic cord, and wherein the other elastic member comprises an elastic band attached to and spaced from a flexible, substantially inelastic strap.

24. The motor vehicle as defined in claim 21 wherein the elastic members extend the full length of the front and back edges.

5 25. The motor vehicle as defined in claim 24 wherein the elastic members comprise elastic cord.

26. The motor vehicle as defined in claim 24 wherein the elastic members comprise an elastic band attached to and spaced from a flexible, substantially inelastic strap.

10 27. The motor vehicle as defined in claim 19 wherein the sides are open, to define a hammock-like storage area.

15 28. The motor vehicle as defined in claim 19 wherein the sides are closed, to define an envelope-like storage area.

29. The motor vehicle as defined in claim 19, the storage net further comprising means for providing a predetermined amount of transverse elasticity to the storage area.

20 30. The motor vehicle as defined in claim 29 wherein the transverse elasticity providing means comprises an elastic member attached to each of the two sides.

25 31. The motor vehicle as defined in claim 30 wherein the elastic member comprises one of elastic cord and a portion of elastic cord attached to and spaced from a braided, substantially inelastic cord.

32. The motor vehicle as defined in claim 19 wherein the front and back are formed of a woven mesh, nylon netting.

5 33. The motor vehicle as defined in claim 19 wherein the attaching means comprises loops attached to one of the stowage area and the storage area, and hooks attached to the other of the stowage area and the storage area.

10 34. The motor vehicle as defined in claim 19, the storage net further comprising a handle attached to the storage area.

35. A motor vehicle having a stowage area and a storage net disposed in the stowage area, the storage net comprising:

15 a woven mesh, nylon netting storage area having a front, a back and two sides, the sides being closed to define an envelope-like storage area, the front and back being pivotally connected at one end and each having edges distal from the one end;

20 means for providing a predetermined amount of longitudinal elasticity to the storage area, the longitudinal elasticity providing means comprising two elastic members, one member being attached to the front edge and the other member being attached to the back edge;

25 means for providing a predetermined amount of transverse elasticity to the storage area, the transverse elasticity providing means comprising an elastic member attached to each of the two sides; and

30 means for attaching the storage area to the stowage area;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction and wherein the front and back edges

draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween.



## AMENDED CLAIMS

[received by the International Bureau on 30 September 1993 (30.09.93);  
original claims 1 and 19 deleted; original claims  
2-6,8-11,14-16,20-24,26-29 and 32-34 amended;  
new claims 36-49 added; remaining claims unchanged (14 pages)]

1. (Cancel)

2. The storage net as defined in claim 11  
wherein the longitudinal elasticity providing means  
5 comprises an elastic member attached to the one end.

3. The storage net as defined in claim 11  
wherein the front and back each have edges distal from  
the one end and wherein the longitudinal elasticity  
providing means comprises two elastic members, one member  
10 being attached to the front edge and the other member  
being attached to the back edge, wherein the front and  
back edges draw together firmly enough as to prevent the  
stowed items from inadvertently escaping therebetween.

4. The storage net as defined in claim 3  
15 wherein each of the front and back edges has a length  
extending between the two sides, and wherein one of the  
elastic members extends the length of one of the front  
and back edges.

5. A storage net, comprising:  
20 a storage area having a front, a back and two  
sides, the front and back being pivotally connected at  
one end and each having edges distal from the one end,  
and each of the front and back edges having a length  
extending between the two sides;  
25 means for providing a predetermined amount of  
longitudinal elasticity to the storage area, comprising  
two elastic members, one member being attached to the  
front edge and the other member being attached to the  
back edge, wherein one of the elastic members extends the  
30 length of one of the front and back edges, wherein the  
lastic member extending th length c mprises elastic  
cord, and wherein th ther elastic member comprises an  
elastic band attached to and spaced from a flexible,

substantially inelastic strap, and wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween;

5 and

means for removably attaching the storage area to a desired surface;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance  
10 in any direction.

6. The storage net as defined in claim 3 wherein each of the front and back edges has a length extending between the two sides, and wherein the elastic members extend the length of the front and back edges.

5 7. The storage net as defined in claim 6 wherein the elastic members comprise elastic cord.

8. A storage net, comprising:

10 a storage area having a front, a back and two sides, the front and back being pivotally connected at one end and each having edges distal from the one end, and each of the front and back edges having a length extending between the two sides;

15 means for providing a predetermined amount of longitudinal elasticity to the storage area, comprising two elastic members, one member being attached to the front edge and the other member being attached to the back edge, wherein the elastic members extend the length of the front and back edges, wherein the elastic members comprise an elastic band attached to and spaced from a  
20 flexible, substantially inelastic strap, and wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween; and

25 means for removably attaching the storage area to a desired surface;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

30 9. The storage net as defined in claim 11 wherein the sides are open, to define a hammock-like storage area.

10. The storage net as defined in claim 11 wherein the sides are closed, to define an envelope-like storage area.

5

11. A storage net, comprising:

a storage area having a front, a back and two sides, the front and back being pivotally connected at one end;

10

means for providing a predetermined amount of longitudinal elasticity to the storage area;

means for providing a predetermined amount of transverse elasticity to the storage area; and

means for removably attaching the storage area to a desired surface;

15

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

20

12. The storage net as defined in claim 11 wherein the transverse elasticity providing means comprises an elastic member attached to each of the two sides.

25

13. The storage net as defined in claim 12 wherein the elastic member comprises one of elastic cord and a portion of elastic cord attached to and spaced from a braided, substantially inelastic cord.

14. The storage net as defined in claim 11 wherein the front and back are formed of a lightweight, woven mesh netting.

15. A storage net, comprising:

a storage area having a front, a back and two sides, the front and back being pivotally connected at one end;

5 means for providing a predetermined amount of longitudinal elasticity to the storage area; and

means for removably attaching the storage area to a desired surface, wherein the attaching means comprises loops attached to the storage area, and hooks  
10 adapted to be attached to the desired surface;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

16. The storage net as defined in claim 11,  
15 further comprising a handle attached to the storage area.

17. The storage net as defined in claim 3, further comprising a spacer member removably attached to, and extending between the front and back edges.

18. A storage net, comprising:

20 a woven mesh, nylon netting storage area having a front, a back and two sides, the sides being closed to define an envelope-like storage area, the front and back being pivotally connected at one end and each having edges distal from the one end;

25 means for providing a predetermined amount of longitudinal elasticity to the storage area, the longitudinal elasticity providing means comprising two elastic members, one member being attached to the front edge and the other member being attached to the back edge;

30 means for providing a predetermined amount of transverse elasticity to the storage area, the transverse elasticity providing means comprising an elastic member attached to each of the two sides; and

means for attaching the storage area to a  
desired surface;

5 wherein items stowed in the storage area are  
prevented from moving more than a predetermined distance  
in any direction and wherein the front and back edges  
draw together firmly enough as to prevent the stowed  
items from inadvertently escaping therebetween.

19. (Cancel)

20. The motor vehicle as defined in claim 29 wherein the longitudinal elasticity providing means comprises an elastic member attached to the one end.

5           21. The motor vehicle as defined in claim 29 wherein the front and back each have edges distal from the one end and wherein the longitudinal elasticity providing means comprises two elastic members, one member  
10           being attached to the front edge and the other member being attached to the back edge, wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween.

          22. The motor vehicle as defined in claim 21 wherein each of the front and back edges has a length  
15           extending between the two sides, and wherein one of the elastic members extends the length of one of the front and back edges.

          23. A motor vehicle having a stowage area and a storage net disposed in the stowage area, the storage  
20           net comprising:

          a storage area having a front, a back and two sides, the front and back being pivotally connected at one end and each having edges distal from the one end, each of the front and back edges having a length  
25           extending between the two sides;

          means for providing a predetermined amount of longitudinal elasticity to the storage area, comprising two elastic members, one member being attached to the front edge and the other member being attached to the  
30           back edge, wherein one of the elastic members extends the length of one of the front and back edges, wherein the elastic member extending the length comprises elastic cord, and wherein the other elastic member comprises an

elastic band attached to and spaced from a flexible,  
substantially inelastic strap, wherein the front and back  
edges draw together firmly enough as to prevent the  
5 stowed items from inadvertently escaping therebetween;  
and

means for removably attaching the storage area  
to the stowage area;

10 wherein items stowed in the storage area are  
prevented from moving more than a predetermined distance  
in any direction.



24. The motor vehicle as defined in claim 21 wherein each of the front and back edges has a length extending between the two sides, and wherein the elastic members extend the length of the front and back edges.

5           25. The motor vehicle as defined in claim 24 wherein the elastic members comprise elastic cord.

26. A motor vehicle having a stowage area and a storage net disposed in the stowage area, the storage net comprising:

10           a storage area having a front, a back and two sides, the front and back being pivotally connected at one end and each having edges distal from the one end, and each of the front and back edges having a length extending between the two sides;

15           means for providing a predetermined amount of longitudinal elasticity to the storage area, comprising two elastic members, one member being attached to the front edge and the other member being attached to the back edge, wherein the elastic members extend the length  
20 of the front and back edges, wherein the elastic members comprise an elastic band attached to and spaced from a flexible, substantially inelastic strap, and wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping  
25 therebetween; and

          means for removably attaching the storage area to the stowage area;

          wherein items stowed in the storage area are prevented from moving more than a predetermined distance  
30 in any direction.

27. The motor vehicle as defined in claim 29 wherein the sides are open, to define a hammock-like storage area.

28. The motor vehicle as defined in claim 29 wherein the sides are closed, to define an envelope-like storage area.

5 29. A motor vehicle having a stowage area and a storage net disposed in the stowage area, the storage net comprising:

10 a storage area having a front, a back and two sides, the front and back being pivotally connected at one end;

means for providing a predetermined amount of longitudinal elasticity to the storage area;

means for providing a predetermined amount of transverse elasticity to the storage area; and

15 means for removably attaching the storage area to the stowage area;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

20 30. The motor vehicle as defined in claim 29 wherein the transverse elasticity providing means comprises an elastic member attached to each of the two sides.

25 31. The motor vehicle as defined in claim 30 wherein the elastic member comprises one of elastic cord and a portion of elastic cord attached to and spaced from a braided, substantially inelastic cord.

32. The motor vehicle as defined in claim 29 wherein the front and back are formed of a woven mesh, nylon netting.

5 33. A motor vehicle having a stowage area and a storage net disposed in the stowage area, the storage net comprising:

a storage area having a front, a back and two sides, the front and back being pivotally connected at one end;

10 means for providing a predetermined amount of longitudinal elasticity to the storage area; and

means for removably attaching the storage area to the stowage area, wherein the attaching means comprises loops attached to the storage area, and hooks adapted to be attached to the stowage area;

15 wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

20 34. The motor vehicle as defined in claim 29, the storage net further comprising a handle attached to the storage area.

35. A motor vehicle having a stowage area and a storage net disposed in the stowage area, the storage net comprising:

25 a woven mesh, nylon netting storage area having a front, a back and two sides, the sides being closed to define an envelope-like storage area, the front and back being pivotally connected at one end and each having edges distal from the one end;

30 means for providing a predetermined amount of longitudinal elasticity to the storage area, the longitudinal elasticity providing means comprising two elastic members, one member being attached to the front edge and the other member being attached to the back edge ;

means for providing a predetermined amount of transverse elasticity to the storage area, the transverse elasticity providing means comprising an elastic member attached to each of the two sides; and

5 means for attaching the storage area to the storage area;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction and wherein the front and back edges  
10 draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween.

36. A storage net, comprising:

a storage area having a front, a back and two sides, the front and back being pivotally connected at  
15 one end;

means for providing a predetermined amount of longitudinal elasticity to the storage area; and

means for removably attaching the storage area to a desired surface, wherein the attaching means  
20 comprises loops adapted to be attached to the desired surface, and hooks attached to the storage area;

wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

25 37. A motor vehicle having a storage area and a storage net disposed in the storage area, the storage net comprising:

a storage area having a front, a back and two sides, the front and back being pivotally connected at  
30 one end;

means for providing a predetermined amount of longitudinal elasticity to the storage area; and

means for removably attaching the storage area to the storage area, wherein the attaching means

comprises loops adapted to be attached to the stowage area, and hooks attached to the storage area;

5 wherein items stowed in the storage area are prevented from moving more than a predetermined distance in any direction.

38. The storage net as defined in claim 15 wherein the longitudinal elasticity providing means comprises an elastic member attached to the one end.

10 39. The storage net as defined in claim 15 wherein the front and back each have edges distal from the one end and wherein the longitudinal elasticity providing means comprises two elastic members, one member being attached to the front edge and the other member  
15 being attached to the back edge, wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween.

40. The storage net as defined in claim 15 wherein the sides are open, to define a hammock-like  
20 storage area.

41. The storage net as defined in claim 15 wherein the sides are closed, to define an envelope-like storage area.

42. The storage net as defined in claim 15  
25 wherein the front and back are formed of a lightweight, woven mesh netting.

43. The storage net as defined in claim 1, further comprising a handle attached to the storage area.

44. The motor vehicle as defined in claim 33 wherein the longitudinal elasticity providing means comprises an elastic member attached to the one end.

5 45. The motor vehicle as defined in claim 33 wherein the front and back each have edges distal from the one end and wherein the longitudinal elasticity providing means comprises two elastic members, one member being attached to the front edge and the other member  
10 being attached to the back edge, wherein the front and back edges draw together firmly enough as to prevent the stowed items from inadvertently escaping therebetween.

46. The motor vehicle as defined in claim 33 wherein the sides are open, to define a hammock-like  
15 storage area.

47. The motor vehicle as defined in claim 33 wherein the sides are closed, to define an envelope-like storage area.

48. The motor vehicle as defined in claim 33 wherein the front and back are formed of a woven mesh,  
20 nylon netting.

49. The motor vehicle as defined in claim 33, the storage net further comprising a handle attached to the storage area.

## STATEMENT UNDER ARTICLE 19

The foregoing amendments revise the claims to correspond to the claims as they currently stand in the parent United States case, U.S. Serial No. 07/874,636, which was filed on April 27, 1992. In that the prior art cited in the International Search Report of the present application is substantially the same as that which was cited against U.S. Serial No. 07/874,636, and the claims as amended above correspond to those which Applicant submits are allowable in the U.S. application, it is submitted that the claims as amended avoid the art and are allowable.

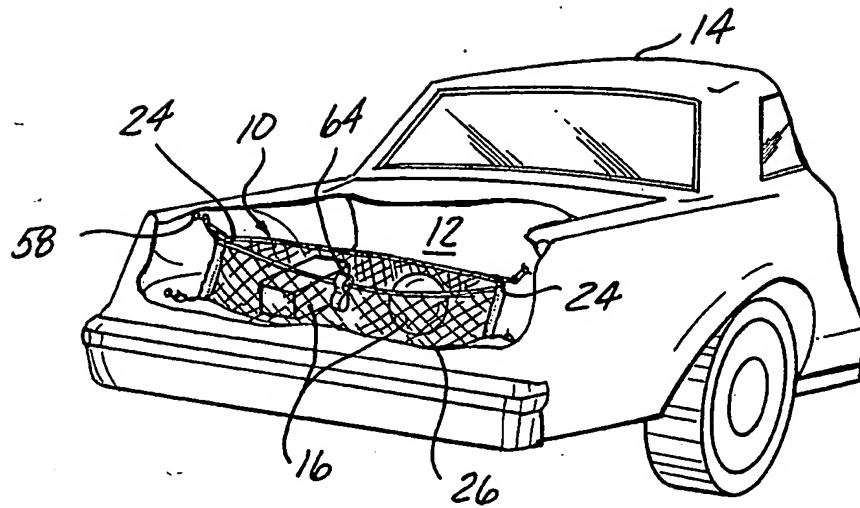


FIG-1

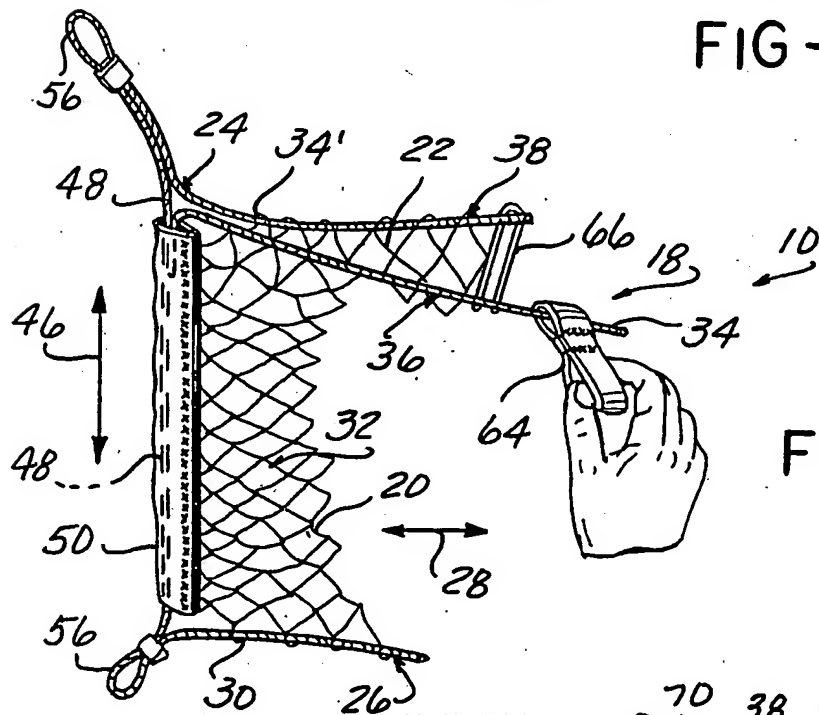


FIG-2

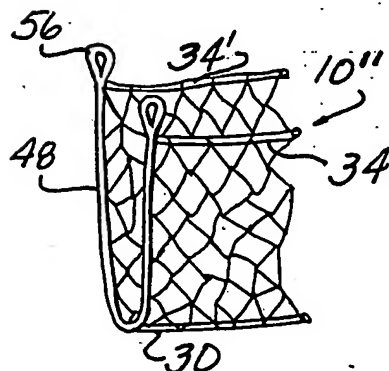


FIG-5

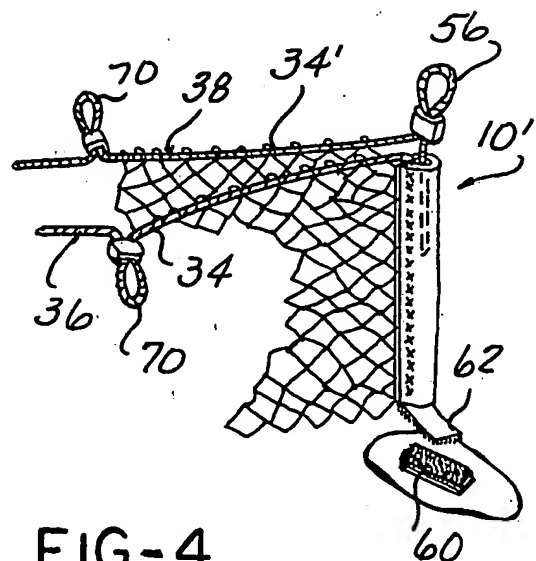


FIG-4



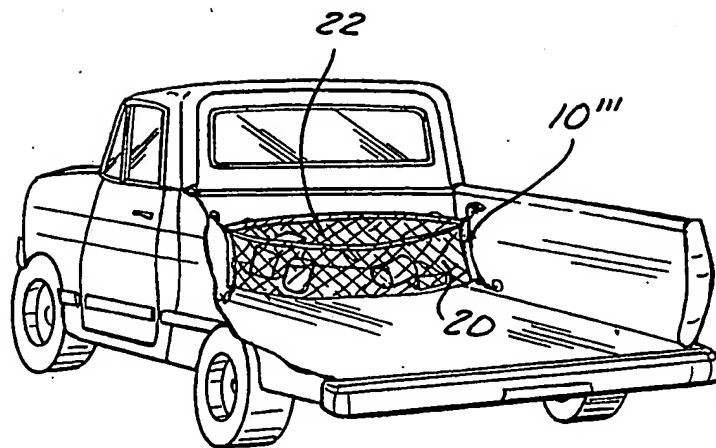


FIG-6

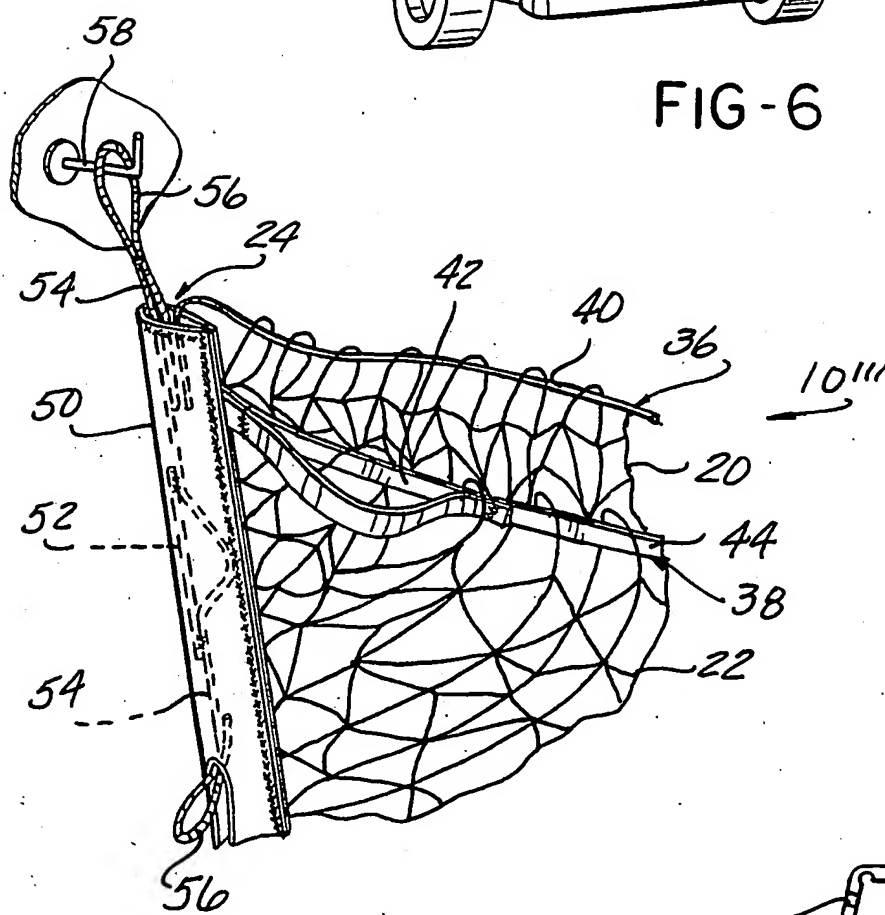


FIG-7

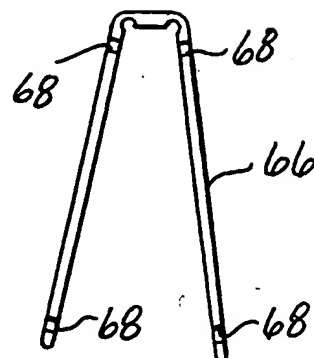


FIG-3

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US93/03890

## A. CLASSIFICATION OF SUBJECT MATTER

IPC(5) :B60R 7/00

US CL :224/42.46R, 273

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : Please See Extra Sheet.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
aps, search terms: vehicle, automobile, trunk, storage, nylon

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	US,A, 5,040,711 (Niederhauser et al) 20 August 1991, see entire document.	1,3,4,6,7,10 19,21,22,24 <u>25,28</u> 14,32
Y	US,A, 5,012,963 (Rosenbaum) 7 May 1991, see entire document.	14,32
A,P	US,A, 5,118,019 (Harrison) 02 June 1992.	
A	US,A, 4,964,771 (Callihan) 23 October 1990.	
A,P	US,A, 5,121,958 (Goeden et al) 16 June 1992	

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:	*T	later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
*A* document defining the general state of the art which is not considered to be part of particular relevance	*X	document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
*E* earlier document published on or after the international filing date	*Y	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
*L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	*G	document member of the same patent family
*O* document referring to an oral disclosure, use, exhibition or other means		
*P* document published prior to the international filing date but later than the priority date claimed		

Date of the actual completion of the international search

10 JUNE 1993

Date of mailing of the international search report

04 AUG 1993

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US93/03890

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A, P	US, A, 5,121,958 (Goeden et al) 16 June 1992	
A	US, A, 4,189,056 (Majewski) 19 February 1980.	
A	US, A, 2,986,315 (Zimmerman) 30 May 1961.	
A	US, A, 1,837,537 (Emerson) 22 December 1931.	
A	US, A, 5,058,786 (Politi) 22 October 1991.	

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/US93/03890

## B. FIELDS SEARCHED

Minimum documentation searched

Classification System: U.S.

224/42.46R, 273, 318, 324, 42.42, 42.4; 383/17, 24, 43; 296/37.1, 37.5, 37.6, 37.13, 37.16, 24.1; 410/117, 118, 129, 140; 180/271; 211/88; 280/727, 749